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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,694	04/03/2001	Sean Allen Johnson	5003397-100	9675
7590	11/21/2003		EXAMINER	
Kimberly B. Gatling Smith Helms Mulliss & Moore, L.L.P. P.O. Box 21927 Greensboro, NC 27420			PHAM, HUNG Q	
			ART UNIT	PAPER NUMBER
			2172	12
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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/824,694

Applicant(s)

JOHNSON ET AL.

Examiner

HUNG Q PHAM

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claims 1-3, 6, 9, 10, 14-16, 18-20, 22-24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machihara et al. [USP 6,233,578 B1].**

Regarding to claims 1, 14 and 22, Machihara teaches methods and systems for retrieving information, specified by an information searcher, from a plurality of different database systems, which are connected to a communication network (Col. 1, lines 5-11). As shown in FIG. 2, a plurality of database systems connected to the communication network (Col. 5, lines 55-56) as *a plurality of content repositories*. As shown in FIG. 3, the information resource dictionary 170 manages the metadata and content of the database system (Col. 7, lines 34-38) by using relational tables as in FIG. 4. The information resource dictionary 170 supports the interface section 110 serves as the communication interface for the user as *a client application program interface* to enter an information retrieval request (FIG. 3, Col. 7, lines 8-10). As shown in FIG. 8, a user enters search conditions indicating that he wishes to search for sumo-wrestlers who were born in Tokyo city and display the results in a spreadsheet format (Col. 9, lines 31-44) as *a request to access content and metadata properties*. In short, the technique as discussed above performs the claimed *a client application program interface (API) that is configured to generate a user request to access content and metadata properties in a plurality of content repositories*. The retrieval conditions specified by the user and the requested items expressed in the retrieval content are analyzed so that user's words familiar to the user are converted into system words that can be recognized by the relevant database systems by the language analysis section 120 (Col. 6, lines 40-46; Col. 7, lines 11-17). Based on the results of the language analysis section 120, the information location retrieval section 130 determines where the requested items can be found in the database systems 180, and prepares a SQL so that searches can be conducted

through the database systems 180 (Col. 7, lines 18-25). As seen, language analysis section 120 and the information location retrieval section 130 indicates *a plurality of bridges that translates the user request into SQL as a format understandable by the database systems 180 as plurality of content repositories*. The information location retrieval section 130 also obtains necessary information to convert the search results into a format that can be presented to the user and transfers the information to the information retrieval section (Col. 7, lines 25-29). As shown in FIG. 2 is a retrieved data presentation means 10 for transforming information corresponding to the information retrieval request obtained by information retrieval means 40, into a format which can be read by an application software used by the information searcher so as to facilitate processing of the acquired information by the user (Col. 6, lines 18-24). This performs the claimed *a view services component that processes and converts results content from the plurality of content repositories into a format that is supported by the viewing capabilities of said client API*. Machihara does not explicitly teach the content repositories having *a plurality of proprietary program interfaces* to understand to the format of user request. However, in order to access the various database system 180, the middlewares section 150 is used to receive the user request also the database result as in FIG. 3 (Col. 7, lines 39-42). As known in the art, middleware is software that provides a common application program interface such as ODBC or JDBC. Thus, the middlewares indicates a plurality of proprietary program interfaces of the database systems 180, and obviously, the user request of sumo-wrestlers as discussed above must be understandable by the middlewares for preparing a SQL so that searches can be conducted through the

database systems 180. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including a plurality of proprietary program interfaces for understanding the user request in order to prepare a SQL query for different DBMS systems.

Regarding to claims 2, 15 and 23, Machihara teaches all the claimed subject matters as discussed in claims 1, 14 and 22, Machihara further discloses *an access services component that relays the user request to access content and metadata properties in the plurality of content repositories from said client API to said plurality of bridges* (FIG. 3, Language analysis section 120).

Regarding to claims 3, 16 and 24, Machihara teaches all the claimed subject matters as discussed in claims 2, 14 and 22, Machihara further discloses *access services component maps metadata properties across the plurality of content repositories* (Col. 8, line 51-Col. 9, line 35).

Regarding to claims 6, 18 and 26, Machihara teaches all the claimed subject matters as discussed in claims 1, 14 and 22, but does not explicitly teach *a single bridge corresponds with a single content repository*. However, as disclosed by Machihara, a plurality of middlewares connects to a plurality of database system 180 (FIG. 3). Therefore, it would have been obvious for one of ordinary skill in the art at the time the

invention was made to modify the Machihara system by using each middleware for each database system in order to speed up the process of retrieving information.

Regarding to claims 9, 19 and 27, Machihara teaches all the claimed subject matters as discussed in claims 1, 14 and 22, but fails to disclose *a bridge factory that is configured to generate a new bridge to support each new content repository in the system.*

However, as disclosed by Machihara, a plurality of middlewares connects to a plurality of database system 180 (FIG. 3). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including a bridge factory in order to speed up the process of retrieving information.

Regarding to claims 10, 20 and 28, Machihara teaches all the claimed subject matters as discussed in claims 1, 14 and 22, Machihara further discloses *view services component comprises at least one converter that coverts results content into an Internet browser readable format* (FIG. 3, application software section 160).

4. Claims 4, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Van Huban et al. [USP 6,484,177 B1].

Regarding to claims 4, 17 and 25, Machihara teaches all the claimed subject matters as discussed in claims 1, 14 and 22, Machihara further discloses *an exchange services server that enables import and export of non-XML content and metadata properties in the plurality of content repositories* (Information Resource Dictionary 170, FIG. 3), but fails to teach the content repositories in an *XML format*. Van Huben discloses a plurality of database system with XML format (Van Huben, FIG. 4B). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including the XML document in the database system in order to retrieve a database that contains XML files.

5. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Hobbs [USP 6,523,022 B1].

Regarding to claim 5, Machihara teaches all the claimed subject matters as discussed in claim 1, but fails to disclose *client API is in a format selected from the group consisting of Java, component object model (COM), and web services*. Hobbs teaches a system for selecting multimedia information and further discloses a transport layer API such as Java, component object model (COM), and web services (Hobbs, Col. 14, lines 9-20). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including Java,

component object model (COM), and web services in API 110 in order to communicate with a remote database server.

Regarding to claim 12, Machihara teaches all the claimed subject matters as discussed in claim 1, but fails to disclose *each bridge answers client requests via a mode selected from the group consisting of remote method invocation (RMI), Internet Inter-ORB Protocol (IIOP), and extensible markup language (XML) over hypertext transport protocol (HTTP)*. Hobbs teaches a system for selecting multimedia information and further discloses a transport layer API from the groups of remote method invocation, Internet Inter-ORB Protocol, and extensible markup language over hypertext transport protocol (Hobbs, Col. 14, lines 9-20). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including remote method invocation, Internet Inter-ORB Protocol, and extensible markup language over hypertext transport protocol in API 110 in order to communicate with a remote database server.

6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Clark et al. [USP 6,442,541 B1].

Regarding to claim 7, Machihara teaches all the claimed subject matters as discussed in claim 1, but fails to disclose *view services component is an Enterprise Java*

Bean. Clark teaches a set of Java Beans for facilitating data extraction from a JDBC-ODBC database (Clark, Abstract). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including an Enterprise Java Bean in order to enhance the view of the search result.

Regarding to claim 8, Machihara teaches all the claimed subject matters as discussed in claim 1, but fails to disclose *each bridge is an Enterprise Java Bean (EJB) deployed in an application server*. However, as disclosed by Machihara, a plurality of middlewares connects to a plurality of database system 180 (FIG. 3). Clark teaches a set of Java Beans for facilitating data extraction from a JDBC-ODBC database (Clark, Abstract). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including each Enterprise Java Bean in each middleware in order to enhance the view of the search result.

7. Claims 11, 21 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Clairborne [USP 6,462,833 B1].

Regarding to claims 11, 21 and 29, Machihara teaches all the claimed subject matters as discussed in claims 1, 14 and 22, but fails to disclose *one processor that*

processes results content by scaling, rotating, or enhancing an image. Clairborne teaches a processor that processes results content by scaling, rotating, or enhancing an image (Clairborne, Col. 9, lines 29-55). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including a processor to process an image in order to edit an image file retrieved from an image database.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Machihara et al. [USP 6,233,578 B1] in view of Hobbs [USP 6,523,022 B1] and Rangarajan et al. [USP 6,185,609 B1].

Regarding to claim 13, Machihara teaches all the claimed subject matters as discussed in claim 1, but fails to disclose *each bridge accesses its underlying content repository via a mode selected from the group consisting of Java, Component Object Model (COM), and Java Native Interface (JNI) application program interface (API) calls.* Hobbs teaches a system for selecting multimedia information and further discloses a transport layer API such as Java, component object model (COM), and web services (Hobbs, Col. 14, lines 9-20). Rangarajan teaches a system for remote access by invoking a JNI for objects or procedures that are not programmed in Java (Rangarajan, Col. 5, lines 10-14). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Machihara system by including Java, COM and JNI in order to communicate with a remote database server.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

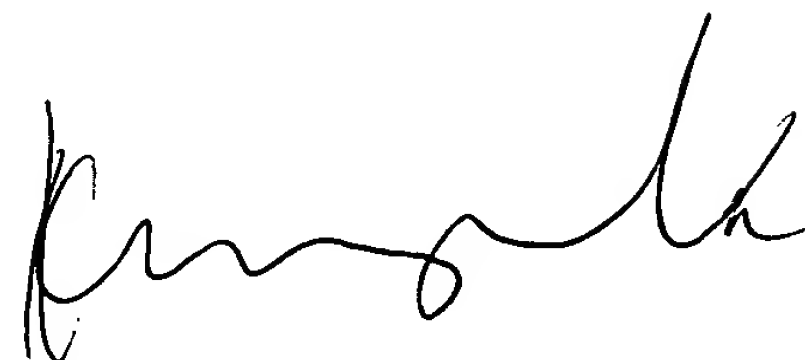
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM Y VU can be reached on 703-305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Art Unit: 2172

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Examiner Hung Pham
November 6, 2003

A handwritten signature in black ink, appearing to read 'Kim Vu', written in a cursive style.

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100